

2018

The Mandt System Research Study Synopsis



The Mandt System
10/11/2018



Synopsis of Research Project Conducted at the East Mississippi State Hospital

Doctoral Candidate/Research Director – Yolanda McDade

Program Study Location Information

East Mississippi State Hospital (EMSH) is an inpatient behavioral health program located in Meridian, Mississippi. Operating under the direction of the Mississippi Department of Mental Health, EMSH is the second largest employer in Meridian, MS. EMSH serves individuals from 31 counties of the state by providing psychiatric and substance use disorder treatment for both adults and adolescents.

Services Provided by EMSH

Inpatient Services

- Adult Inpatient Services Unit – 6 units with 20 beds in each unit
- Adult Male Chemical Dependency Unit – 28 day treatment program with 25 beds
- Adolescent Complex – 25 bed unit for ages 12-17
- Nursing Home Division – 2 facilities with 120 beds in each facility
- Community Services Division – 2 group homes with 10 beds in each home

Research Goal

Insight into the effectiveness of *The Mandt System* aggression management training in an inpatient behavioral health program

Key facts supporting basis for research

In 2013, 80% of serious violent incidents reported in healthcare settings were caused by interactions with patients. Patients are the largest source of violence in healthcare settings (OSHA, 2015). Aggressive and violent incidents perpetrated by patients are a major concern in psychiatric acute mental health care inpatient settings. Aggression not only endangers the safety and well-being of staff and vulnerable and fragile peers, but also endangers the aggressors' safety.

Baseline Data

For this study, the binomial tests included archival data of incidents of aggression and violence, seclusion and restraint collected over a period of six years, three years prior to the implementation of The Mandt System training (2007 to 2009) and three years after the implementation of the training (2011 to 2013). Data from year 2010 were not analyzed because that was the year when The Mandt System was implemented.

Measurement Parameters

- Question 1: Effect on rate of patient to patient incidents related to aggression and violence
- Question 2: Effect on rate of patient to staff incidents related to aggression and violence
- Question 3: Effect on rate of seclusions related to aggression and violence
- Question 4: Effect on rate of restraints related to aggression and violence

Note: The program at EMSH, prior to The Mandt System, was effectuated by a state committee initiated by the Mississippi Department of Mental Health

Potential Research Limitation

- Study conducted at a large behavioral health program. Findings may not be applicable to smaller hospitals
- Capturing, reporting and storing of the data may not be the same at other facilities, causing a potential challenge for comparison
- Study pertains to a subset of patients at EMSH, and generalizations may not be able to be made to all patients receiving services from other inpatient behavioral health programs
- Data is archival (2007-2013), and researcher had no control over how it was collected

Key Assumption

The Mandt System was taught and used as intended and that the annual recertification training was effective in its goal to give staff refresher training

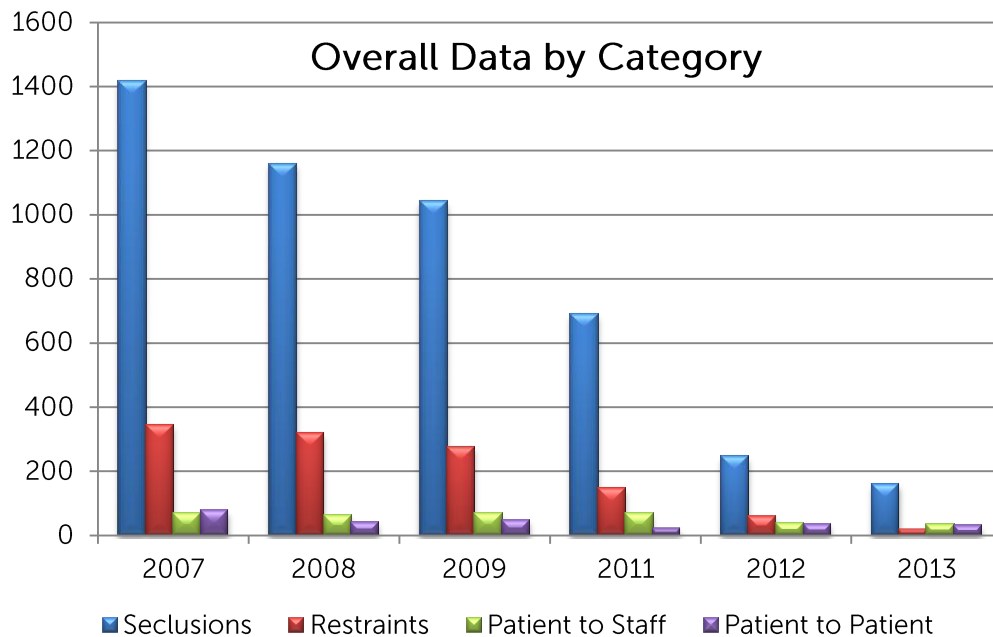
Findings Synopsis

- Research author asserts 3 of 4 measurement parameters significantly impacted
- Data implies overall number of incidents during pre-training (2007-

- 2009) was significantly higher when compared to the post-training years (2011-2013). (2010 data was not employed since that was the year the program transitioned)
- There was a downward trend from 2007 to 2013 in the overall data (number of incidents) after the implementation of The Mandt System.
- Sufficient evidence exists to state that The Mandt System had a statistically significant impact on the rates of patient to patient incidents, seclusion episodes and restraint episode
- The study also states The Mandt System did not have a statistically significant impact on the rates of patient to staff incidents.

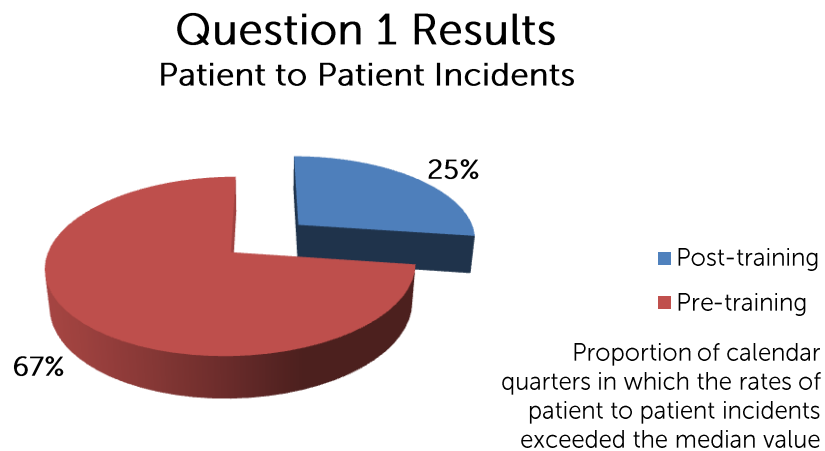
Total Reported Incidents by Year

	Pre-Training				Post-Training			
	2007	2008	2009	Total	2011	2012	2013	Total
Patient to Patient	78	42	49	169	21	27	32	80
Patient to Staff	69	62	69	200	68	40	35	143
Seclusions	1416	1159	1041	3616	689	245	158	1098
Restraints	344	318	276	938	146	59	18	225



Question 1 Summary

Based on the results, the proportion of the rates of patient to patient incidents in pre-training (67%) was significantly higher than the proportion of the rate of patient to patient incidents in post-training (25%). Overall, the author concluded that The Mandt System assisted in the 118 reduction of incidents when patients were involved in an incident with their peers.



Question 2 Summary

Based on the results, the proportion of the rates of patient to staff incidents in pre-training (42%) was not significantly higher than the proportion of the rates of patient to staff incidents in post training (50%). The results of this study indicate that The Mandt System training was not beneficial in decreasing the rate of patient to staff incidents through building healthy relationships.

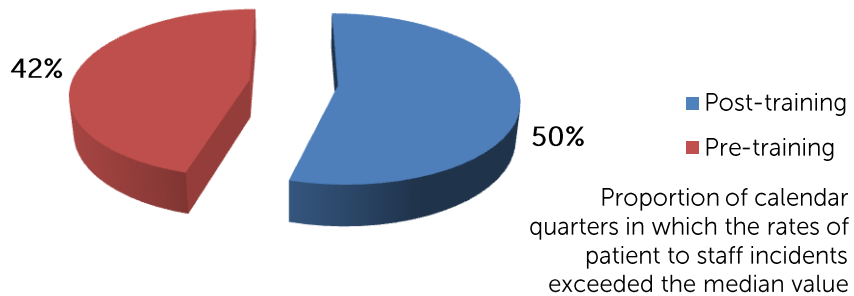
Question 2/Staff to Patient Additional Insight

- Author states though it did not decrease significantly, it did decrease, just not at the significant levels of the other three categories
- Category actually experienced year over year decreases during three year post implementation period (2007 – 2010)
- These results are also inconsistent with a study conducted by Ferguson and Leno-Gordon (2010). After implementation of aggression management training based on a therapeutic, compassionate, and safe approach to prevent incidents of escalating agitated behavior, there was reduction in the total

number of patient/staff injuries resulting from agitation-related incidents on the inpatient units. In addition, there was an empowerment of staff and patients with greater collaboration, and overall improvement for patient and staff satisfaction relating to treatment.

Question 2 Results

Patient to Staff Incidents

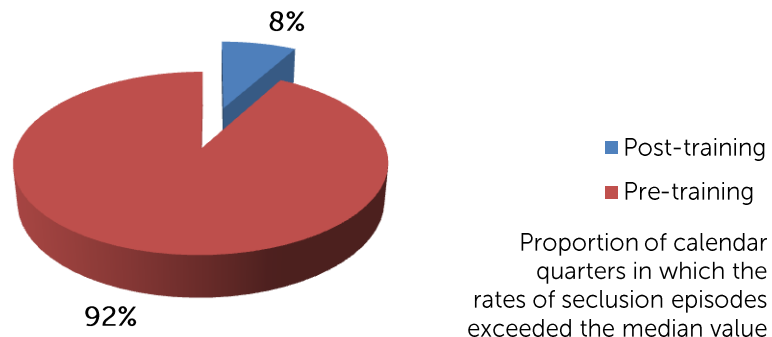


Question 3 Summary

Based on the results, the proportion of the rates of seclusion episodes in pre-training (92%) was significantly higher than the proportion of the rate of seclusion episodes in post-training (8%). Overall, the author concluded that due to the reduction of seclusion episodes, The Mandt System improved the staff's ability to manage aggressive behavior without the use of seclusion.

Question 3 Results

Seclusion Episodes

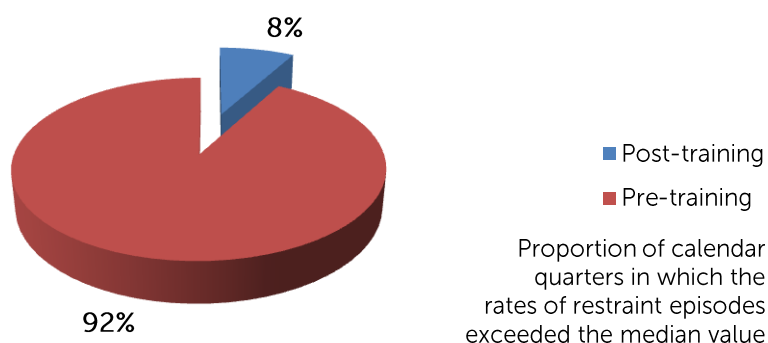


Question 4 Summary

Based on the results, the proportion of the rate of restraint episodes in pre-training (92%) was significantly higher than the proportion of the

rate of restraint episodes in post-training (8%). Overall, the researcher concluded that due to the reduction of restraint episodes, The Mandt System improved the staff's ability to manage aggressive behavior without the use of restraints.

Question 4 Results Restraint Episodes



Potential Impact Factors

Factor 1

As stated earlier, a key assumption is that the researcher had no way of ascertaining that The Mandt System training was implemented as intended. The researcher did not attend all the trainings conducted during the time period of the study. The researcher is not a certified trainer of The Mandt System. It should be taken at face value that the training was delivered with the integrity of which it was designed.

Factor 2

During the time period of interest for the study, there was a decrease in the bed capacity and monthly average census at this inpatient behavioral health program. A lower census may have impacted the number of aggression incidents and seclusion/ restraint episodes reported during post-training. A lower census may mean that fewer patients were likely to be involved in an aggression incident and/or a seclusion or restraint episode

Factor 3

The data did not account for distinct individuals that were involved in the aggression and violent incidents. For example, one individual receiving services may have been involved in several incidents and/or

seclusion/restraint episodes. So an incident and/or episode were counted upon each occurrence. This distinct individual could be considered an outlier of the data set.

Factor 4

Change of programming in this inpatient behavioral health program. Prior to 2013, individuals seeking treatment were admitted either to a male or female receiving unit. Over the course of treatment, as an individual's mental health stabilized they were transferred to units based on their acuity levels. Beginning in 2013, each unit within the inpatient behavioral health program was categorized by level of acuity (low, moderate, severe) and upon admission, patients were placed appropriate units based on their acuity level. This resulted in placement of patients in unit with like peers, potentially providing a more therapeutic environment where patients became less aggressive and violent.

Factor 5

During the same time period of the implementation of The Mandt System at EMSH, hospital administration simultaneously increased emphasis on preventing behavioral incidents through organizational factors such as: (1) establishment of reduction goals of seclusions and restraints, formulation of strategies by medical providers and other clinical staff to meet the reduction goals, etc. Through these factors, the hospital administration engendered a change of culture on managing aggression at the facility. A change in culture may have simultaneously assisted in the reduction of patient to patient incidents, seclusion episodes and restraint episodes.

Concluding Viewpoints

- Based on this study, the reduction in the use of seclusion and restraints coincided with a reduction in patient to patient incidents. The results provided support for the idea that The Mandt System may have played a significant role in reducing patient on patient aggression in an inpatient behavioral health program.
- Overall findings also coincide with literature claiming that the implementation of behavioral management led to a significant reduction in the episodes of aggressive behavior and other unwanted outcomes including injuries, use of physical restraint, and duration of seclusion. (Effective training on the management of aggression is essential in decreasing aggressive and violent behavior)

- Effective staff training programs are needed to provide staff with additional support and organizational factors are critically important to the success of staff training in terms of client outcomes.
- Mental health staff should be well trained to manage aggressive behavior by picking up early cues that signal mounting aggression in patients.
- Improved management commitment to an aggression and violence prevention program and employee engagement can lead to enhanced employee perceptions of safety.
- Early detection should include intervention techniques that place emphasis on supporting patient autonomy and dignity.
- Intervention techniques should include building a caring, helping relationship that is based upon honesty, respect and trust.
- Strong leadership direction, policy and procedural changes, staff training, consumer debriefing, and regular feedback will lead to a successful reduction in aggression and violent behaviors as well as seclusion and restraint.
- Although the results of this study suggest that this training can have a positive effect on aggression and violence, much more needs to be done to evaluate the effectiveness of aggression management training programs
- These findings are difficult to validate due to a scarcity of research that is supported by evidence from randomized controlled studies
- This study worked to address this limitation by retrospectively evaluating the efficacy of aggression management training, specifically The Mandt System, in a behavioral health program

Final Synopsis

The research strongly suggests that The Mandt System reduced the incidents of violence and aggression but this is one isolated study and a wider range of evidence based research in different size settings and environments are needed to fully understand the potential impact of The Mandt System in managing these behaviors.